

IN THE CLAIMS

Claim 1 (original): A method of preparation of a cross-linked hydrogel by graft copolymerisation, said method comprises the steps of preparing an aqueous solution comprising one or more hydrophilic polymers, a cross-linking agent and a photoinitiator comprising a water-soluble peroxydisulphate, subjecting said solution to irradiation and obtaining the cross-linked hydrogel, wherein the hydrophilic polymers are saturated and the cross-linking agent acts as a co-catalyst of cross-linking.

Claim 2 (original): A method according to claim 1 wherein the peroxidisulphate is sodium, potassium or ammonium peroxydisulphate.

Claim 3 (currently amended): A method according to claim 1 ~~or 2~~ characterised in that the solution comprises one or more co-initiators in the form of multivalent transition metal ions.

Claim 4 (currently amended): A method according to claim 1 ~~any of claims 1-3~~ characterised in that the hydrophilic polymer comprises is chosen from the group of cellulose derivatives, polysaccharides, polyvinyl pyrrolidone, polyvinyl alcohol, polyacrylic acid, poly (methyl vinyl ether/ maleic anhydride), poly (meth)acrylic acid, polyethyleneglycols (PEG), polyamides, polyacrylic amides, polyethylene glycol (PEG) or copolymers or blends of these.

Claim 5 (currently amended): A method according to claim 1 ~~any of claims 1-4~~ characterised in that the saturated hydrophilic polymer comprises polyvinyl-pyrrolidone (PVP) or PVP based copolymers.

Claim 6 (currently amended): A method according to claim 1 ~~any of claims 1-5~~ characterised in that the cross-linking agent comprises vinylic or unsaturated macromers or monomers such as mono-/di- or multifunctional acrylates or methacrylates.

Claim 7 (currently amended): A method according to claim 1 ~~claim 1-6~~ characterised in that the solution comprises one or more plasticizers.

Claim 8 (currently amended): A method according to claim 1 ~~any of claims 1-7~~ wherein said the cross-linked hydrogel is in the form of a sheet.

Claim 9 (original): A composition for preparation of a cross-linked hydrogel by photopolymerisation, said composition comprises an aqueous solution comprising one or more hydrophilic polymers, a cross-linking agent and a photoinitiator comprising a peroxydisulphate, wherein the hydrophilic polymers are saturated.

Claim 10 (currently amended): A cross-linked hydrogel prepared by the method according to claim 1 ~~any of claims 1-8~~.